

SYSTEM FOR CODE DIVISION MULTI-ACCESS COMMUNICATION**ABSTRACT OF THE DISCLOSURE**

According to the present invention a received
5 Direct Sequence Code Division Multi-Access (DS-CDMA) signal
is differentially decoded at the chip level. A number of
signaling schemes can be used in the invention including (1)
an ON/OFF signaling scheme in which a pseudo noise number
(PN) code is sent only in response to one data bit value,
10 and no signal is sent in response to the other bit value;
(2) a Two Code signaling scheme in which bit values of 1
triggers a first PN code to be transmitted, and a bit value of 0
triggers a second PN code to be transmitted; and (3) an M-
ary signaling method in which a plurality of data bit
15 patterns respectively, trigger a plurality of PN codes to be
transmitted. After differential decoding the received
signal is despread using one or more PN codes, that can be
vector sums of two or more PN codes.